

Amendments to the Specification:

Please replace the paragraph beginning at page 5, line 11, with the following rewritten paragraph:

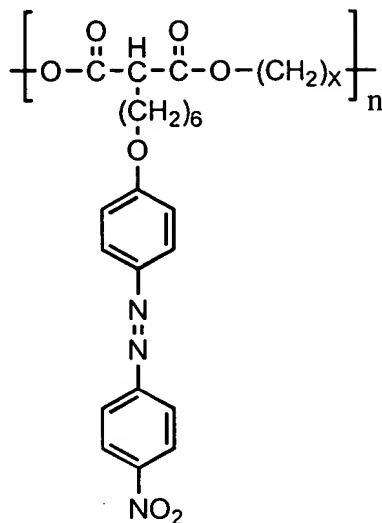
1 - - The substrate can be any material commonly used for fabricating liquid crystal cells. Materials such as glass, quartz or plastic can be used. The substrate materials can also be any materials commonly used for fabricating chips, for example silicon. - -

Please replace the paragraph beginning at page 7, line 24, with the following rewritten paragraph:

2 - - In Figure 2, a helium neon laser (11) ~~generates~~ acts as a light source. The light ~~source generated~~ passes through polarizer (12), sample (13), quarter wave plate (14), analyzer on rotational stage (15), and lens (16), before reaching detector (17). - -

Please replace the paragraph beginning at page 12, line 14, with the following rewritten paragraph:

3 - - Example 1
Material: Structural formula of the material is given by



wherein x is a number from about 4 to about 16 and n is a number from about 10 to about 1000. In this example, x is 8 and the average molecular weight is 13500 g/mol. Synthesis of this material is described in *Makromol. Chem.*, 194, 3341 (1993) by A. ~~Bohme~~ Böhme, E. Novotna, H. Kresse, F. Kuschel and J. Lindau. This polymer absorbs light with λ less than about 500 nm due to an azobenzene chromophore contained in the side-chains of polymer molecules. When absorbing light, the azobenzene fragments undergo trans-cis isomerization accompanied with reorientation perpendicularly to the light polarization. An optical dipole moment of the trans isomer is oriented almost along its long axis. - -

Please replace the paragraph beginning at page 13, line 14, with the following rewritten paragraph: ✓

- - The film was irradiated with the parallel beam of the polarized light from a Xe-lamp. The light beam was perpendicular to the plane of the polymer. Light intensity in the plane of the substrate was ± 20 mW/cm². The film was exposed for 15 min. The irradiation spectrum of the lamp overlaps the absorption spectrum of the polymer film. - -

Please replace the paragraph beginning at page 18, line 10, with the following rewritten paragraph:

as
- - Fabrication of the polymer film: The same as in Example 1.

Irradiation of the polymer film: The film was irradiated normally to the film plane with the parallel beam of the non-polarized light from a Xe-lamp. The intensity of the light was ~~11~~ 35 mW/cm². The other conditions were the same as in Example 1.

Characteristics of the film: The null ellipsometry technique showed uniaxial structure with orientation of the optic axis normally to the film; $n_e - n_o = 0.25$.--
